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[\[PDF \(756K\)\]](#) [\[References\]](#)**Differential wheat cultivars to discriminate pathogenicity of Japanese wheat yellow mosaic virus (WYMV) isolates**Y. OHTO¹⁾, K. HATTA²⁾ and K. ISHIGURO¹⁾³⁾

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ABSTRACT

Wheat yellow mosaic virus (WYMV) is a soilborne virus transmitted by *Polymyxa graminis*. Experimental data suggested the occurrence of WYMV strains in Japan. Based on their susceptibility to Japanese isolates WYMV-M and WYMV-T, three wheat cultivars Nanbukomugi, Fukuhokomugi and Hokkai 240 were selected as differential cultivars. Nanbukomugi is susceptible to both WYMV-M and WYMV-T. Fukuhokomugi is susceptible to WYMV-T and resistant to WYMV-M. Hokkai 240 is resistant to both isolates. WYMV isolated from wheat fields in Japan and from virus-infested fields of the wheat breeding programs were grouped into three pathotypes based on their infectivity on the differential cultivars. Type I, represented by WYMV-T and mainly isolated from west and central part of Japan, infects Fukuhokomugi and Nanbukomugi, type II, represented by WYMV-M and mainly isolated in northern Japan, infects only Nanbukomugi; and type III, isolated in Fukuoka Prefecture, infects all three differential cultivars. The differential cultivar set is available for breeding programs of WYMV-resistant wheat cultivars in Japan.

Key words: *Triticum aestivum*, *Wheat yellow mosaic virus*, pathogenicity, resistance, differential cultivar set

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